FALCO 2

Pioneering Gas Sensing Technology.
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FALCO 2

FALCO 2 ensures accurate and reliable detection you can trust, in a diverse range of environments

Diffused & Pumped Models

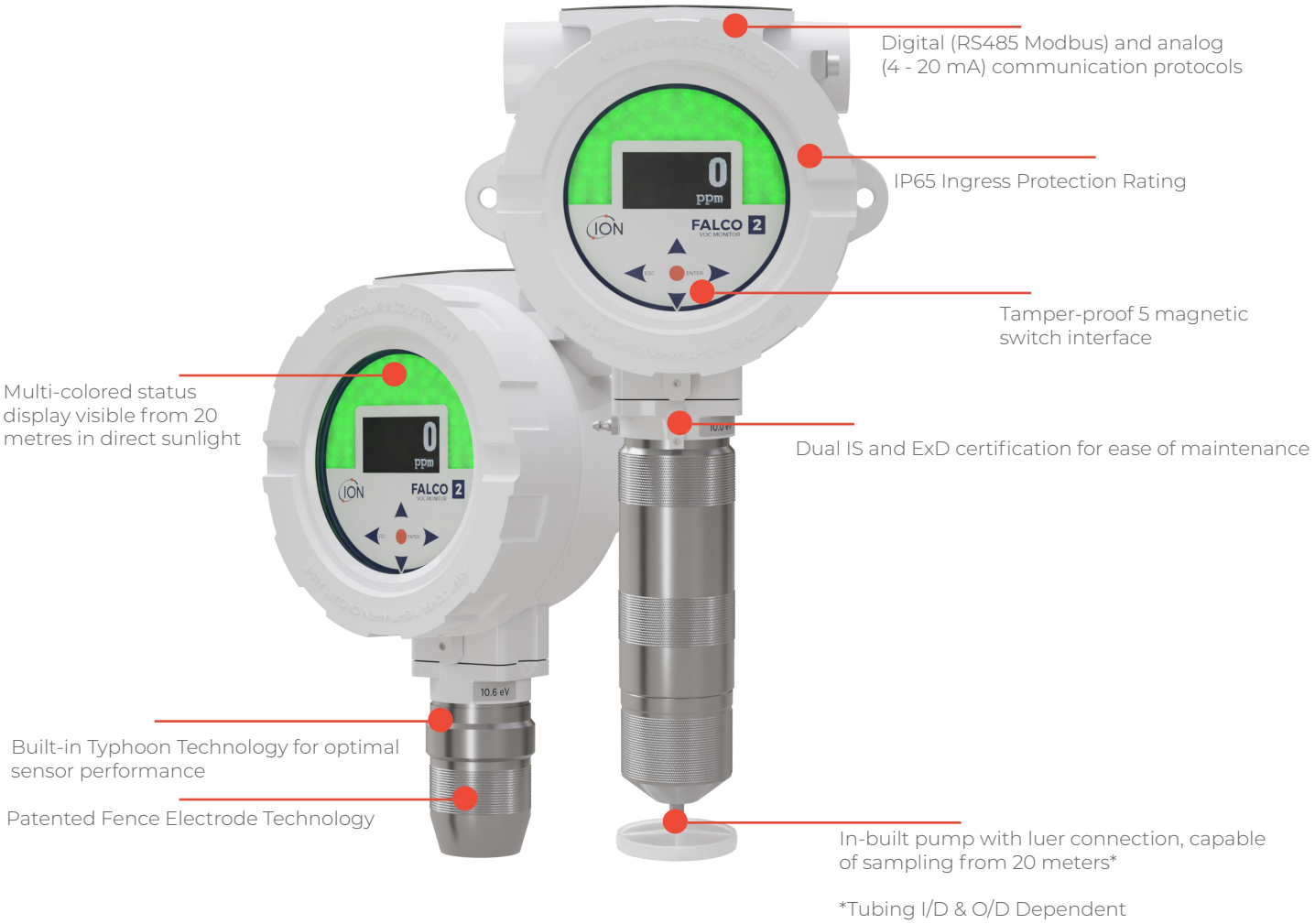
The FALCO 2 offers both a pumped and diffused sampling method to accommodate a wide range of applications and monitoring needs. FALCO 2 incorporates the world-class MiniPID 2 Photoionization (PID) Sensor in both 10.6 eV and 10.0 eV variants to allow detection of over 700 Volatile Organic Compounds (VOCs). MiniPID 2 offers additional features such as lamp life longevity, and ease of service and maintenance.

With the 10.6 option, the FALCO 2 offers four pre-defined measurement ranges of 0.001 - 10 ppm, 0.01 - 50 ppm, 0.1 - 1000 ppm & 0 - 3000 ppm. The alternative 10.0eV option boasts a lower detection range of 0.01 - 50ppm in both Pumped or Diffused sampling methods to allow accurate detection of Total Aromatic Compound's (TAC) such as Benzene, Xylnene and Toluene.

With ATEX and IECEx certification, FALCO 2 is certified for use in potentially explosive environments which makes it the ideal solution for fixed continuous monitoring. Equipped with ION Science's patented Fence Electrode Technology and Anti-Contamination design, FALCO 2 is resilient in the face of high humidity levels and contamination from dust and particulates. Uniquely featured in FALCO 2 is ION Science's Typhoon Technology which safeguards the PID sensor from condensing moisture, making it ideal for fixed monitoring in harsh conditions or wet outdoor environments. These unique features eliminate false readings found with other competing technology, providing results you can trust.

Key Features

- **IP65 Ingress Protection**
  Protection against harsh conditions and weather temperatures
- **Live Readings & Instantaneous Alarms**
  Bright visible status indicator: RED, AMBER, GREEN
- **Robust ExD Housing**
  ExD housing offers ease of installation and product protection
- **Typhoon Technology**
  Prevents condensation forming within the PID sensor
- **Diffused or Pumped Model Variants**
  10.6 eV and 10.0 eV variants available



Additional Features

FALCO 2 offers both analog (4-20mA) and digital (RS485 Modbus) signal outputs, enabling seamless integration into a wide range of systems and allowing for efficient data collection and monitoring. This dual output capability ensures flexibility in connecting to various control and monitoring systems, making it ideal for complex industrial setups.

FALCO 2 is equipped with two programmable relays that can be configured for either Normally Open (N/O) or Normally Closed (N/C) contacts, provides users with versatile control options, allowing for customised configurations based on specific application needs.

FALCO 2 stands out for its cost-effective performance with a low total cost of ownership, while delivering high durability and reliability. It is specifically designed to operate in high humidity environments, from 0 to 100% relative humidity, ensuring reliable functionality even in challenging conditions. Its advanced technology allows for accurate and dependable detection of Volatile Organic Compounds (VOCs), making it ideal for industries that require consistent and trusted VOC detecion.

Aligned with ION Science's mission to protect health and the environment, FALCO 2 combines reliability, flexibility, and environmental responsibility, making it a vital tool for safety and environmental protection across various sectors.

Common Applications

- Solvent and chemical storage
- Li-ion battery manufacturing and storage
- TAC monitoring within refineries
- Air quality monitoring
- In-situ process monitoring
- Leak detection

Technical specifications

Sensor
- Photoionisation detector with 10.6 eV and 10.0 eV lamp options

Detection ranges and sensitivity with 10.6 eV lamp fitted*
- 10 ppm, 0.001 ppm
- 50 ppm, 0.01 ppm
- 1000 ppm, 0.1 ppm
- 3000 ppm, 1 ppm

Detection range and sensitivity with 10.0 eV lamp fitted*
- 50 ppm, 0.01 ppm

Response time (T90)
- Pumped models: <10 Seconds**
- Diffused models: <30 Seconds**

Accuracy
- ± 5% or ± 1 digit

User interface
- OLED high contrast white on black: 128 x 64 pixels
- Screen size: 35 mm (w) x 17.5 mm (h)
- 5 magnetic switches with LED confirmation (up, down, left, right & enter)

Status indicator
- Bright visible status indicator: RED, AMBER, GREEN

Output
- 4 - 20 mA
- 2 programmable relays
- RS 485 Modbus

FALCO 2 Pumped environmental specification
- Operational temperature: -20 °C to +50 °C, 0-100% RH and condensing humidity
- Storage temperature: -20 °C to +60 °C

FALCO 2 Diffused environmental specification

environmental specification
- Operational temperature: -40 °C to +50 °C, 0-100% RH and condensing humidity
- Storage temperature: -20 °C to +60 °C

Ingress Protection
- Main unit: IP65
- Sensor head: IP65

Power
- Working voltage: 8 to 40 Vdc
- Typical 2 W, Max. 7 watts

Mechanical interface
- 2 x cable entry points with M25 threads (left and right)

Mounting points
- 2 x M8

Weight & Dimensions (pumped)
- 2.9 kg
- 325 (h) x 192(w) x 115 (d) mm

Weight & Dimensions (diffused)
- 2.5 kg
- 223 (h) x 192 (w) x 115 (d) mm

EMC
- EMC Directive 2014/30/EU

Certification

Ex **All 2G**
ATEX/IECEx: Ex db ib IIC T4 Gb
North American: Ex db ib IIC T4 Gb Class I, Zone 1, AEx db ib IIC T4 Gb

Warranty

12 months (standard)
24 months (extended)

* All specifications quoted are at calibration point and under the same ambient conditions.
** When set to continuous measurement
Specifications are based on isobutylene calibration at 20 °C and 1000 mBar.
Modbus® is a registered trademark of Schneider Electric

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